

What is Claimed:

1. A door operating device for opening a door in a wall, said door moveable between an open position and a closed position and having an ajar position between said open position and said closed position, said door having a rotatable handle for retracting a latch bolt from a latch plate in said wall while said door is in said closed position, said door operating device comprising

a linkage having a first connector attachable to said door, a second connector attachable to said wall, and having a power driven moveable means,

said moveable means moveable in a first direction to move said door from said closed position to said open position,

unlatching means for unlatching said door while said door is in said closed position,

said unlatching means attachable to said door and said rotatable handle and having a motor for rotating said handle and retracting said latch bolt,

a start means for generating a signal to start a door opening sequence, and

control means responsive to said signal from said start means for commencing the operation of said unlatching means and for commencing movement of said moveable means in said first direction wherein said door will be unlatched and moved to said open position.

2. The device of claim 1 wherein

said moveable means is driven by a first motor.

said unlatching means is driven by a second motor, and

said control means directs power to said first motor and said second motor.

3. The combination comprising

a door in an opening in a wall,

said door moveable between an open position and a closed position and having an ajar position between said open position and said closed position,

a door operating device for moving said door between said ajar position and said open position,

an assist for moving said door between said closed position and said ajar position, and

means for co-ordinating the operations of said door operating device and said assist wherein said assist will move said door from said closed position to said ajar position and said door operating device will move said door from said ajar position to said open position after said door reaches said ajar position.

4. The combination of claim 3 and further comprising
a latch between said door and said wall for releasably latching said door in
said closed position,
said latch having a rotatable handle, and
unlatching means for unlatching said door, said unlatching means
attached to said door and said rotatable handle and having a motor for rotating
said handle for retracting said bolt.

5. The combination of claim 3 wherein said assist comprises moveable
means moveable in a first direction for moving said door from said ajar position to
said closed position and moveable in a second direction for moving said door
from closed position to said ajar position.

6. A kit for attachment between a door and a wall, said door moveable
between an open position in which an end of said door is spaced from said wall,
an ajar position, and a closed position, said kit for urging said door between said
closed position and said open position, said kit comprising

a connector attachable to one of said door and said wall,
moveable means attachable to the other of said door and said wall, said
moveable means driven by a first motor,
said moveable means for applying force to said door for moving said door
from said ajar position to said closed position and for applying force to said door
for moving said door closed position to said ajar position,

said moveable means spaced from said connector when said door is in said open position and engaged with said connector when said door is in said ajar position and said closed position,

a door operator having a linkage attachable between said door and said wall, said door operator for moving said door from said ajar position to said open position,

said door operator driven by a second motor, and

means for controlling said first motor and said second motor for providing unified movement of said door between said closed position and said open position.

7. The kit of claim 6 wherein said door has a door latch with a retractable latch bolt for engaging a latch plate on said wall, said bolt retractable by rotating a handle, said kit further comprising

an unlatching device attachable to said door and said handle, said unlatching device to rotating said handle and retracting said bolt,

said unlatching device having a third motor, and

said means for controlling also controlling said third motor for unlatching said door before moving said door from said closed position to said open position.

8. The method of controlling the opening of a door in a wall, said door moveable between an open position, and a closed position, and having an ajar position between said open and said closed position, said door having a latch with a retractable bolt for engaging a latch plate on said wall, said bolt retracted by rotating a handle on said latch, said method comprising the steps of,

providing a door operating device attachable to said door and said wall, said door operating device for moving said door from said closed position to said open position,

attaching said door operating device to said door and said wall,

providing an unlatching device attachable to said door and said handle for rotating said handle to unlatch said door,

attaching said unlatching device to said door and said handle,

providing means for coordinating the operators of said unlatching device and said door operating device wherein said unlatching device will unlatch a closed door after which said door operating device will open said door.

9. The method of claim 8 wherein said door operating device also moves said door from said open position to said closed position and said means for coordinating the operations of said unlatching device and said door operating device will carry out the steps of

said unlatching device rotating said handle to retract said latch bolt while said door is in said open position,

said door operating device moving said door from said open position to said closed position,

said unlatching device releasing said handle to extend said bolt into said latch plate,

said door operating device holding said door in said closed position until said unlatching device has released said handle to extend said bolt, and

terminating power to said door operating device after said unlatching device has released said handle to extend said bolt.

10. The method of claim 8 and comprising the further steps of providing an assist attachable to said door and said wall, said assist for applying additional force to move said door between said closed position and said ajar position,

attaching said assist to said door and said wall, and

providing said means for coordinating where said means for coordinating coordinates the operations of said unlatching device, said door operating and said assist wherein said unlatching device will unlatch a closed door after which said assist will urge said door from said closed position to said ajar position and said door operating device will open said door.